HOE 901 (INSULIN GLARGINE) IMPROVES SATISFACTION WITH INTENSIFIED INSULIN TREATMENT FOR TYPE 1 DIABETES

Elke Witthaus, Clare Bradley, John Stewart

Aim: Insulin glargine, a new long-acting insulin, provides constant, peakless insulin release and is designed for once daily administration. Satisfaction with treatment (Diabetes Treatment Satisfaction Questionnaire (DTSQ)) and psychological well-being (Well-being Questionnaire (W-BQ)) were assessed in 9 European countries in a phase III multicentre randomised controlled open clinical trial comparing the effects of insulin glargine and NPH human basal insulin. Methods: The questionnaires were self-completed at baseline, and at least once at weeks 8, 20 or 28 by the 517 patients (287 men and 230 women; mean age 39.7±12.1 yrs; mean duration of diabetes 16.0±10.7 yrs; mean GHB at baseline 7.9±1.2 %). Baseline scores of the DTSQ (mean 27.96 ± 5.65; maximum possible score = 36) and of the W-BQ (mean 49.88 ± 9.13; maximum possible score = 66) were high in this population. Analysis of covariance was performed on the change from baseline scores, using treatment and pooled site as main effects with baseline scores as covariate. Results: Treatment satisfaction improved during treatment with insulin glargine at all time points and at endpoint (last on-treatment assessment) whereas it deteriorated slightly with NPH insulin. These differences were significant throughout the study (change from baseline at end point +1.27 vs −0.56; p = 0.0001). Outcomes were better with insulin glargine for both Perceived Frequency of Hyperglycaemia and Perceived Frequency of Hypoglycaemia with statistically significant differences at week 28 and at endpoint for hyperglycaemia (p = 0.037 and 0.038) and at week 20 (p = 0.002) for hypoglycaemia. Glycaemic control, as measured by GHB, was essentially unchanged in both treatment groups. There was no difference in psychological well-being between the treatment groups. Mean W-BQ scores in these patients increased during the study in both groups (p value). Analysis of the W-BQ subscales shows that the observed effects on general well-being are attributable to effects on all subscale scores. Conclusion: The psychological outcomes observed in this study include treatment-independent improvements in general well-being. More substantial effects were seen on treatment satisfaction which was statistically significantly improved with insulin glargine, together with a decrease in perceived frequency of hyperglycaemia and hypoglycaemia compared with NPH.